



## Confluence and Great Rivers Chapters Newsletter

Volume No. 02 Issue No. 02.1 Date: May, 2008

### Upcoming Events

#### Act today – May 1 deadline for registration

Missouri Master Naturalist Third annual statewide conference and advanced training – This is a great opportunity to meet your fellow Master Naturalist peers from our nine chapters across the state, visit with the friends you've made through the program and share new ideas. Contact Connie for additional information [connie\\_mccormack@yahoo.com](mailto:connie_mccormack@yahoo.com)

### Missouri Master Naturalists Confluence and Great Rivers Chapter Annual Potluck Picnic

Will be held on Thursday, June 5 starting at 5:30 pm at Kirkwood Park Guests are welcome.

Brats will be prepared by John and you are asked to bring your drinks and a side dish to add to the festivities.

So mark you calendars this is a great opportunity to visit with friends you've made through the program and to meet new members and share ideas.

(Please note corrected date of picnic is June 5)

#### Master Naturalists Support LaBarque Creek Snail Survey

*By Larry Berglund*

Who said surveying snails at the LaBarque Creek Watershed would be easy? The beautiful terrain at LaBarque Creek with its hills, ridgetops, stream beds and rock ledges showed us how challenging but fun it could be. Diverse wildflowers, bushes, trees and some interesting wildlife abound at LaBarque Creek, so in addition to survey results are the great times had hiking through the woods, glades and streams of this great land in northeast Jefferson County south of Eureka.

Starting on March 1 a combined group of surveyors from the MMN Confluence and Great Rivers Chapters joined Webster Groves Nature Study Society (WGNSS), Missouri Native Plant Society and LaBarque Creek residents in support of Ron Oesch and Nels Holmberg to collect and analyze the snail population of this area of great biodiversity as part of Ron Oesch's research for his second book on

Missouri snails. Success has been continuous with 19 species found that first Saturday and a total of 37 species identified over the next survey dates out of a total statewide species list of 106 snails. In total we will have had seven survey outings at various LaBarque Creek locations, both public land and on private properties throughout the watershed. The next two dates are Friday May 16 and lastly Sunday June 8.



Super Snail Survey Squad #2

How do you survey snails? You dig in the soil and leaf litter as well as turn over rocks and fallen logs. Our main success has been on limestone dolomite ridge tops and hillsides but surprisingly also on low area mown grass sites. Snails require the calcium in limestone substrate for shell building. Tools used are your hands and small trowels as well as magnifying glasses to seek the tiny snails difficult to see with the naked eye. Pill bottles become the individual collection vehicles that are then combined into larger jars labeled for each GPS location. Ron Oesch then analyzes the collections under microscope and scientifically identifies each separate species. Reports are provided on the next survey day in addition to extras put into vials and available for surveyors to have for their personal collection and remembrances. Ron has identified duplications of live snails and those are returned to the soil where found.

#### Cool Cities Taking Lead to Protect Environment and Save Tax Dollars

*By Jerry Lindhorst*

Across America, nearly 800 cities have signed an agreement to work toward going Green by taking steps required under the U.S. Conference of Mayors Climate Protection Agreement. Unfortunately, only a handful of those are from our area: City of St. Louis; Clayton; Maplewood; Kirkwood; Sunset Hills; Florissant; University City; and St. Peters have signed the agreement.

A recent Climate Control conference, nick-named Cool Cities in response to Global Warming, was held at the Ethical Society to encourage interested citizens to get their cities to sign the agreement and take action. Participants from more than 40 cities attended the conference. The goal of Cool Cities is to reduce global warming carbon dioxide (CO<sub>2</sub>) to 7% below 1990 levels by 2012.

The strategy to reduce CO<sub>2</sub> is to implement practical and innovative energy solutions that reduce energy waste, thus cutting



## Confluence and Great Rivers Chapters Newsletter

Volume No. 02 Issue No. 02.1 Date: May, 2008

dependence on oil and coal, benefiting public health, protecting our environment and saving tax dollars. While each city is responsible for developing its own plan and may be unique, there are three key Cool Cities' strategies: Green vehicle fleets; energy efficiency in government buildings; and renewable Energy.

Check to see if your city has signed the Climate Protection Agreement, and if not, challenge your city government.

### The Genome Sequencing Center Tour By Pam Wilcox

On January 31, 2008, nine Master Naturalists toured the Genome Sequencing Center at Washington University School of Medicine. The group split into two groups, those with more knowledge of the genome project and scientific background in one group and the 'lay' people in the other (that would be me and just a few others). However, by the end of the tour we had learned about the entire process with more information than we could possibly absorb.

The Genome Sequencing Center completed the Human Genome Project in 2003. Their goal was to determine the order of the 3 billion chemical subunits that make up the genome - a process called sequencing. The genome is the entire DNA content for an organism. The GSC and other research centers around the globe will use this information to help detect disease causing genetic flaws. The GSC is now working on sequencing the genome of other living organisms, including the mouse, chicken and chimpanzee. The GSC was also the first to sequence the roundworm.

Dr Cherilynn Shadding, Director of Outreach for the GSC, and Latricia Wallace, Outreach Associate were our guides and instructors leading us through the process and explaining each and every step. The Mapping area where the genomes are cut into smaller segments to enable quicker and easier analyses to the sequencing the second major step is called "Sequencing". This is where the Geneticists analyze each piece, or clone, to determine its exact base sequence. In between we were able to witness the various phases in what they called the "Production Pipeline". These areas included Media, Materials, Library, Plating, Picking and Prepping by the end of the tour we realized what a monumental task it is and how important each step is to the outcome. After the clones have gone thru the entire process, the GSC publishes its findings each night to the GenBank database at the National Center for Biotechnology Information. All data are publicly available on the internet. So some night when you are completely bored, take a look! We thanked our guides and headed for our next destination.

For additional information go to: <http://genome.wvstl.edu>

### Monsanto Center at Missouri Botanical Garden Tour By Pam Wilcox

Our next stop was the Monsanto Center of the Missouri Botanical Gardens. We were introduced to Mick Richardson, the Manager of Graduate Studies. This is an interesting place and I found it easier to absorb the information provided since I have some background with plants. The center contains an assortment of cubicles but most of the space is taken up with shelf after shelf of plant specimens from around the world as well as locally. Some date back to the days of Charles Darwin. They own a specimen which he found on one of his expeditions, which actually has his signature. How exciting! Mr. Richardson told us the center contains over 6 million specimens which is a filing nightmare. The center does most of its own publishing. They publish the annals of the Missouri Botanical Garden four times a year, plus volumes of plant information for various foreign countries. For me, the highlight of this tour was being allowed into the rare book room. There were volumes dating back to the 14th and 15th centuries, most in other languages. We were not allowed to touch them, since they are quite fragile. There were many over-sized books of floral prints which are quite beautiful. I felt privileged to be in the rare book room, because it is rare for the public to be allowed, except on tours

### Stream Team Training Class

In April seven Master Naturalists completed their first Stream Team program and participation with the Department of Natural Resources.



The introductory class in water quality monitoring was conducted by the best of the best, Larry Ruff and Priscilla Stotts, local veteran stewards, indeed, and it was really fun.

If you want to help preserve our streams, learn about visual riparian surveys, watershed mapping, and macroinvertebrate identification, put on your boots and join us twice a year slogging' around in the water.



## Confluence and Great Rivers Chapters Newsletter

Volume No. 02 Issue No. 02.1 Date: May, 2008



Our creeks need lots more help, so let's start a Master Naturalist Stream Team!

### World Bird Sanctuary By Valerie Geile

On Thursday, April 24, fourteen Master Naturalists representing both St. Louis area chapters met to tour the facilities of the World Bird Sanctuary near Highway 141 and I-44. The occasional light rain did not impede the tour, as the group spent the morning visiting several areas at the Sanctuary.

The World Bird Sanctuary has four main purposes; education, propagation and behavioral studies, rehabilitation, and field studies. All these areas are concerned with raptors with the exception of field studies, where the focus is on resident and migrating bird populations (largely passerines).

We began our visit at the hospital and rehab building, with an introduction to the facility given by Joe Hoffman. Joe walked us through the office, operating rooms, and the patient holding area, where he introduced us to the current hospital patients. The rehabilitating group included a couple of barred owls, a great horned owl, and a black-crowned night heron, all of which were in various stages of recovery. After touring the hospital, we walked past an outdoor bird exhibit area, ducking raindrops along the way, and we learned about the various birds on display there.

Next we carpooled to the behind-the-scenes propagation facilities located near the rear of the property. The buildings and outdoor cages here house birds featured in various education programs as well as breeding, incubation, and nursery areas. This portion of the tour was extremely interesting and quite exclusive; normally this area is off-limits to visitors, except for one weekend annually when guests can view these facilities during WBS Open House. We saw many interesting birds, eggs, chicks, and nesting pairs; we even listened to an egg that was in the process of

hatching! Jen Bender, another long-time staff member at the Sanctuary, graciously led this portion of the tour and also answered our questions.

We ended our visit at the Nature Center and Gift Shop, where we received brochures about various WBS Programs, including upcoming birding trips, Girl and Boy Scout Badge Programs, WBS events, on-site Sunrise with Songbirds birdwalks, Adopt-a-Bird information, and other topics of interest.

It was a wonderful visit, and we all learned a great deal about the fascinating world of raptors. The World Bird Sanctuary provided absolutely wonderful hosts for our tour, and we are grateful for the attention and effort they showed in ensuring that our visit was richly rewarding.

The WBS is a completely not-for-profit organization, relying exclusively on donations and volunteer participation. To learn more about the World Bird Sanctuary and its mission and varied programs, or to volunteer or donate to the Sanctuary, please visit their website at [www.worldbirdsantuary.org](http://www.worldbirdsantuary.org).

### Going Green...Climate Action Summit Local action against global warming by Holly Currier

Recently, we have been bombarded with words such as global warming, climate change, renewable resources, greenhouse gas emissions, CO<sub>2</sub>, LED, CFL and green building. As the effects of our gratuitous use of carbon based fuels as an energy source is felt around the world, we, as naturalists, as humans, have the responsibility to work toward a sustainable solution to the problem we have created, before it's too late.

On Saturday March 8, 2008, over 100 concerned citizens, including several fellow Master Naturalists, gathered together at the Ethical Society in Clayton to learn about the challenge facing all citizens: how to create a sustainability plan for our communities to ensure the healthy future of our planet. The event, sponsored by Missouri Coalition for the Environment, the Sierra Club, the Ethical Society and Women's Voices Raised for Social Justice, was an eye-opener.

This first major coalition event was an endeavor by the sponsoring groups, to localize the problems of carbon emissions and provide attendees with the resources to "take action" within their cities and towns. The speakers provided a wealth of information on what communities throughout Missouri are already doing to combat global warming by reducing their own carbon footprint.

Henry Robertson, Sierra Club Energy Chair, introduced the U.S. Mayors Climate Protection Agreement (2005) which, to date, has been signed by over 800 mayors nationwide. By signing this agreement, city governments are committing to enact policies and programs that will reduce global warming emissions in City



## Confluence and Great Rivers Chapters Newsletter

Volume No. 02 Issue No. 02.1 Date: May, 2008

operations and in the community. The full agreement can be read at [usmayors.org/climateprotection/agreement](http://usmayors.org/climateprotection/agreement). This site also lists the names of all mayors who have signed the agreement. Another valuable resource can be found at [www.coolcities.us](http://www.coolcities.us) which is a Sierra Club website dedicated to providing the public with the information on how to approach their local government and inspire them to become involved in reducing the greenhouse gas emissions of their city.

Other speakers included:

- Dennis Murphy, the Chief Environmental Officer for Kansas City, who gave an impressive talk on how Kansas City, MO has been actively integrating renewable energy and efficiency into daily city operations.
- Jay Hasheider, representative from Columbia (MO) Water and Light, shared what his company is doing to integrate renewable resources into the electricity used by the City of Columbia. He also shed light on the financial viability and long term profitability of utilizing various forms of renewable energy on a citywide level.
- Linda Goldstein, Mayor of the City of Clayton, shared the efforts made by city employees to achieve the goals listed in the US Mayors Climate Protection Agreement which she has signed.
- Rick Hunter of the St. Louis Chapter of the U.S. Green Building Council, spoke on the “business case” for environmental building. He remarked that now there is actual data to support the financial benefits to building “green”. [www.architecture2030.org](http://www.architecture2030.org)

The amount of information presented during this 5 hour conference was monumental. Paring it down to its basic points does not do justice to the incredible steps being taken by some communities to “buck the trend” and become leaders in a future marked by change toward sustainability and, hopefully conspicuous by the absence of the wasteful behavior that has stained our country. With the goal of providing a high quality of life within urban areas while still assuring the earth's ability to sustain society with a stable climate, clean air and water and fertile soils, we can educate people on the importance of the trend toward sustainable living.. To accomplish this we need to develop greener cities that consume fewer resources, create less waste and pollute less all while reducing the greenhouse gas emissions being generated. We can make a difference on a local level, with personal commitment and a combined effort

### Many Serious Environmental Issues Confront Missouri Legislature

By Jerry Lindhorst

The 2008 session of the Missouri Legislature will have to burn the midnight oil just to review all of the environmental issues that they must consider to approve or defeat.

Key issues confronting the legislators (and our environment) include:

**Sand and Gravel Mining**—For three years a bill has been unsuccessfully introduced which would loosen already lax regulations involving the removal of sand and gravel from our state's streams. It's back again in 2008 with some negotiated modifications even though scientific evidence shows that such removal decreases the overall health of the streams.

**Green Building**—One bill under consideration includes: tax credits for commercial or residential building including retrofitting rental properties; making state government buildings green; and possibly demonstration projects involving schools or other large public buildings. Another bill establishes a tax credit for recycling construction waste. Yet another bill requires sellers of newly constructed residential homes to disclose to initial purchasers the energy efficiency rating of homes based on the energy rating system.

**Biofuels**—Four bills filed: Tax deduction for those who use certain types of fuel cell or solar power technology; tax deduction for the purchase and installation of E-85 conversion kits; All diesel fuel sold at retail in state after 4/1/010 be biodiesel-blended fuel; and Allows fuel ethanol produced from qualified biomass to be eligible for certain fuel ethanol production subsidies.

**Smart/Development**—*NOTE: MO does not have a state-wide building code. Some don't want it and some believe it is necessary to more coherent development.* One bill creates the MO County Planning Act, allowing any county to create, adopt, amend and carry out a county plan. Two other bills deal with TIFs (tax increment financing) providing additional TIF financing guidelines and other provisions.

**Factory Farms**—CAFOs (Concentrated Animal Feeding Operations) is closely being watched this year by environmentally-minded legislators. Last year, a bill which would have eliminated the right of counties and other local jurisdictions to pass health ordinances that regulate large-scale factory farms was defeated. There is a concern that Agriculture-related bills in 2008 may include pro-CAFO legislation.

**Other Bills**—Provides guidelines for disposal of electronic waste and recycling computer equipment; Adds fees to shippers of radioactive waste through MO; privilege bill which allows polluters self-report violations and in return are granted immunity from prosecution.



## Confluence and Great Rivers Chapters Newsletter

Volume No. 02 Issue No. 02.1 Date: May, 2008

### A Confluence of Sorts

By Pam Wilcox

March 25th brought together committee members of Confluence and Great Rivers Chapters. A First!

The purpose of the joint meeting was to compare and share existing partnerships. Our goal is to give members of both chapters easy access to Approved Partners/Projects, alleviating the need for continual permission requests for volunteer and/or educational opportunities.

Leslie Limberg shared the Confluence Chapters existing partners' list. Great Rivers' chapter will utilize this list to add them to Great Rivers' Approved Partners.

Once the list is compiled and approved by the chapter Presidents and Scott Killpack, David Lewis will create a spreadsheet listing all Approved Partners and Projects. Hopefully, this will make our volunteer life as a MMN a little easier.

### ?? Did you know ??

#### Good News!

Remember the MN outing to see the hellbender habitat at the Zoo last year??? Well, last October the females finally laid eggs. As this was the first time hellbenders bred in captivity, this is a major milestone for us (and the near extinct species) in Missouri.

#### AND!!! Good News!

Remember at last years' state MN conference, MDC herpetologist Jeff Briggler, who took us on a full-day tour of glades & forests, searching for reptiles/amphibians? Well, again last October (October was a stellar month) Jeff found the largest Ozark Hellbender ever in Missouri! Aptly named Godzilla, the near 2 'pounder' now makes his home at the Zoo hellbender habitat. Jeff also found a rare clutch of eggs, delivered them to the Zoo, where since several hellbenders have hatched. This summer, for the first time older hellbenders will be released to the wild from the captive breeding program.

Truly, a hallmark event!

### Indian Camp Creek Rain Garden Project Update

By Connie McCormack

At the moment the garden is doubling as a pond - with all of the rain we have had and are having there hasn't been anything to do but wait and be thankful that we are getting this much needed rain.

Perhaps it should be noted that the rain garden is already doing what it is intended to do - slow down run off. Once we get past this rainy season the pond will be drained and the work will begin.

### Mark your Calendars for these Upcoming Events

**May 13** – Confluence Chapter monthly meeting 7 pm Busch Night Hike with Holly Currier following meeting

**May 16, 17 and 18** - 2008 Conference - in Springfield Mo...

**May 19** – Outing: LaBarque Creek Hike 12 – 4 Sign up with Leslie [LLlimberg@aol.com](mailto:LLlimberg@aol.com)

**May 20<sup>th</sup>** Great Rivers Chapter monthly meeting

**June 5<sup>th</sup>** Confluence and Great Rivers 2008 Confluence and Great Rivers Potluck picnic Kirkwood Park 5:30pm – 12 midnight  
Menu: John's Famous Brats BYOB

**June 8 - Snail Survey Young CA**  
Bob Coffing 9-3 [robertcoffing@sbcglobal.net](mailto:robertcoffing@sbcglobal.net)

**June 10**– Confluence Chapter meeting with Kevin Meneau, LaBarque Creek fisheries biologist

**June 14** Mississippi River Relief (Chad Pedracke's barge!)  
Missouri River Clean Up  
For details & registration: Holly Currier [hcurrier@sbcglobal.net](mailto:hcurrier@sbcglobal.net)  
Picnic lunch after

**August 1** Next issue of Missouri Master Naturalists Confluence and Great Rivers Chapters Newsletter

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